

**REMARKS**

Claims 1, 2, 4, 6, 9, 14, 16, and 18-29 are currently pending, wherein claims 3, 10 and 15 have been canceled. Applicant respectfully requests entry of the above-identified amendment and favorable reconsideration in view of the remarks presented herein below.

**§ 102(b) Rejection – EP 0800781**

In paragraph 2 of the Office Action (“Action”), the Examiner rejects claims 1-4, 6, 9, 10, and 14-16 under 35 U.S.C. § 102(b) as allegedly being anticipated by European Patent Application Publication No. EP 0 800 781 (EPO ‘781). Applicant respectfully traverses this rejection.

In order to support a rejection under 35 U.S.C. § 102, the applied reference must teach each and every claimed element. In the present case, claims 1-4, 6, 9, 10, and 14-16 are not anticipated by EPO ‘781 because EPO ‘781 fails to disclose each and every claimed element as discussed below.

As discussed in Section 2131.03 of the MPEP, when the prior art discloses a range which touches or overlaps the claimed range, but no specific examples falling within the claimed range are disclosed, a case-by-case determination must be made as to anticipation. In order to anticipate the claims, the claimed subject matter must be disclosed in the reference with “sufficient specificity to constitute an anticipation under the statute.” Furthermore, if the claimed range is directed to a narrow range, and the reference teaches a broad range, it may be reasonable

to conclude that the narrow range is not disclosed with "sufficient specificity" to constitute an anticipation of the claims.

A problem with interdental brushes has been that the wire holding the filaments often becomes permanently deformed, and can even break, upon usage. (bottom paragraph of page 1 of the present specification)

The present invention seeks to provide a more rigid wire for an interdental brush, that if deformed, is not easily subjected to permanent deformation. (third paragraph of page 2 of the present specification)

EPO '781 is directed to preventing buckling and breaking, and improving durability and manipulation ease in an interdental brush wire. In particular, EPO '781 seeks to balance hardness, spring properties and workability in order to provide a resilient brush. EPO '781 discloses that a key to achieving the desired properties is a stainless steel having high proof stress. EPO '781 asserts that an interdental brush wire having great proof stress would be the most suitable.

EPO '781 discloses a brush having wire made of conventional SUS304 stainless steel in which nitrogen is added and the proportion of manganese is controlled. In particular, EPO '781 discloses two groups of wires: a first group having more than 2.5% by weight manganese, and a second group having manganese content of less than 2.5% by weight.

The disclosed stainless steels have conventional amounts of nickel corresponding to SUS304, on the order of 8.00 to 10.00 % by weight. EPO '781 also appears to suggest stainless steels with low or allegedly no nickel content by weight, (e.g., in a seventh aspect, not more than

1.0%). A specific example that was tested contained 0.52 % nickel (Table 2), and instead of nickel, a high amount of manganese was added as a stabilizer (i.e., 18.24%).

The present invention discloses a preferred embodiment having a low nickel austenitic stainless steel. Low nickel stainless steel is desirable because nickel is toxic. On the other hand, nickel is considered necessary to stabilize austenite stainless steel and nickel helps to improve corrosion resistance.

The present invention seeks a rigid wire that is biocompatible. Thus, an aspect of the present invention is the combination of a high tensile strength of 1000 N/mm<sup>2</sup> or more, and a low nickel content of less than 0.05% by weight.

Applicants submit that EPO '781 fails to teach at least wire sections formed of austenitic steel that include less than 0.05% nickel by weight and have a tensile strength of 1000 N/mm<sup>2</sup> or more.

Thus, EPO '781 fails to disclose each and every claimed element. Accordingly, the rejection fails to establish *prima facie* anticipation. Applicants request that the rejection be reconsidered and withdrawn.

#### **§ 103(a) Rejection – EPO '781, JP '637**

Claims 18-29 have been rejected under 35 U.S.C. 103(a) as being unpatentable over EPO '781 in view of JP '637.

Claim 18 recites a comparable feature to claim 1. Applicants submit that JP '637 fails to make up for deficiencies In EPO '781 as expressed in the above with respect to claim 1. Thus, at

least for the same reasons above for claim 1, Applicants submit that the rejection fails to establish *prima facie* obviousness.

Applicants request that the rejection be reconsidered and withdrawn.

**CONCLUSION**

The application is in condition for allowance. Notice of same is earnestly solicited. Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Robert Downs (Reg. No. 48,222) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

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